

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
Experimental Aquaculture Lease Application
15 February 2008

David P. Cheney, Inc.
Docket # 2007 - 11E
Lease [JOHN NB]

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

On March 23, 2007, the Department of Marine Resources (“DMR”) received an application from David P. Cheney, Inc. for a 3-year experimental aquaculture lease on 1.85 acres located in the coastal waters of the State of Maine, in the North Branch of the Johns River in the Town of South Bristol in Lincoln County, for the purpose of cultivating American oysters (*Crassostrea virginica*) and European oysters (*Ostrea edulis*) using bottom culture techniques. The application was accepted as complete on July 24, 2007. No one intervened in this case. Because five or more requests for a hearing on this experimental lease were received, a public hearing on this application was held on December 18, 2007, in South Bristol.

1. THE PROCEEDINGS

The evidentiary record before the Department regarding this lease application includes four exhibits introduced at the hearing (see exhibit list below), numerous written comments submitted by mail, and the record of testimony at the hearing itself. Sworn testimony was given at the hearing by: the applicant, David P. Cheney; DMR’s Aquaculture Environmental Coordinator, Jon Lewis; Keel Kemper, Regional Wildlife Biologist with the Maine Department of Inland Fisheries and Wildlife; and six members of the public, namely Eleanor Adams, Merrilee Cheney, Samuel Kayman, Alan Pooley, John Walker, and Chester Rice.

Notices and copies of the application and DMR site report were sent to numerous state and federal agencies for their review, as well as to a number of educational institutions, aquaculture and environmental organizations, the Town of South Bristol and the South Bristol Harbormaster, members of the Legislature, representatives of the press, and private individuals.

At the hearing, Mr. Cheney described the proposed project. Mr. Lewis presented his site report, including a video presentation showing the sea bottom on the site. Mr. Kemper described his review of the proposal and how he considered its potential impact on wildlife in the vicinity. Four public witnesses (including two riparian owners) supported the project, and two witnesses opposed it. Each witness was sworn and subject to questioning by the Department, the applicant, and members of the public. The hearing was recorded by DMR. The Hearings Officer was Diantha Robinson.

In addition to the testimony and exhibits from the hearing, DMR received 16 letters supporting the project and 9 letters either opposing the project or expressing concerns about it prior to the close of the hearing record; they are included in the record and accorded appropriate weight, given their status as unsworn statements not subject to questioning. The evidence from all of these sources is summarized below.¹

LIST OF EXHIBITS

1. Case file, # 2007-11E
2. Application, signed and dated 4-1-07
3. DMR Site report, dated November 2, 2007
4. Written testimony of Damariscotta River Association

2. DESCRIPTION OF THE PROJECT

Proposed Operations

Mr. Cheney is a lifelong resident of the area and has dug clams in the North Branch of the Johns River since he was a boy in 1984 (Exhibit 2, p. 12). A lobsterman by profession, he is concerned that the lobster fishery may be in decline, and he wants to experiment with oyster aquaculture in hopes of establishing a diversified business to supplement his income. He testified that, by seeding oysters in the North Branch to support his own project, he also hopes to encourage a wild population to develop on and beyond his lease boundaries, to be available for other harvesters, as well as to improve the surrounding marine environment (Cheney, testimony). He showed a detailed knowledge of the North Branch and its natural resources and wildlife, both in his application and in his testimony.

He proposes to plant oysters on the bottom of the site and harvest them in the spring and fall when they have reached adequate size. He will harvest them by diving and collecting them by hand. No structures are proposed; the only gear on the site will be the buoys marking the lease, as required by DMR (Cheney/Robinson).

A wild population of European oysters already exists on and around the proposed lease site, according to Mr. Cheney. He testified that they may be survivors of previous attempts more than 20 years ago to raise oysters in the area, and he considers them proof that the area can sustain an oyster population. He is working with the University of Maine's Darling Center to culture European oysters, and he is also seeking other sources of seed stock for Europeans (Cheney/Robinson).

¹ [NOTE: The reference (Smith/Jones) means testimony of Smith, being questioned by Jones.]

In addition, Mr. Cheney has for some time been collecting American oysters from the wild and seeding them on the site; a population of these oysters is now also established there. Mr. Cheney testified that he is raising American oysters from seed stock on his Limited Purpose Aquaculture License site nearby in Poorhouse Cove; as these seed oysters reach 1" to 2" in size (large enough to survive predation), he will plant them on the North Branch site, likely beginning in July of 2008. Some of the existing American oysters on the site will be ready for harvest in the spring of 2008; the seedling oysters will take at least three years to reach harvestable size (Cheney/Robinson).

For the first two years of the project, Mr. Cheney estimates he might spend about 5 hours each month in planting oysters on the site. While the timing and duration of future harvests are matters of speculation at present, he hopes that in three years he will be able to harvest oysters in the spring and fall over a period of 2 – 3 weeks, working approximately 3 -4 hours each day, 5 days per week. He plans to use a 15 ft. skiff with a 50-hp outboard motor and a dive tender to assist him with his dives. The tender will maintain a watch for approaching vessels and warn them away from the diver's location (Cheney/Robinson).

Other details of the proposed operation are described in the sections below.

Site Characteristics

Mr. Cheney's proposed site is located in the North Branch of the Johns River, a long narrow body of water bordered by relatively undeveloped woodland. The site is a long rectangular tract approximately 116 feet wide by 750 ft. long running more or less north-south in the center of the main channel. The width of the channel in the area where the lease is located is 250 ft. at its widest and generally 100-200 ft. for most of its length through the lease site. The lease takes up the whole width of the channel in some places (Exhibit 3, p. 8).

As described in the DMR site report, mudflats border the site to the east and west, and an exposed ledge (Hawk's Nest Island) lies to the east, as well. The bottom of the site is generally flat, with soft mud at the southern end changing quickly northward to firm sand and gravel overlain by a thin layer of fine sediments likely scoured from within the channel by tidal currents. Shell hash from clams, mussels, and oysters is abundant on the bottom, as is woody debris, which provides shelter to lobsters and crabs (Exhibit 3, p. 3).

Water depth on the site is estimated at between 0.2 ft. and 8.2 ft. at mean low water and approximately 10.8 ft. to 18.8 ft. at mean high water. Although the mudflats in the vicinity are extensive, the lease site is completely submerged at mean low water. Currents are tidally driven and run north and south (Exhibit 3, pp. 3-4). The site will likely ice over in the winter (Exhibit 3, p. 9). The area is classified by DMR as approved/open to the harvest of shellfish. According to the site report, "the Johns River does not 'normally' experience toxic levels of PSP" (paralytic shellfish poisoning or "red tide") (Exhibit 3, p. 7).

Mr. Cheney testified that he chose the site because of its sandy, gravelly bottom, its good water circulation, the five freshwater streams that feed into the North Branch and temper the salinity of the sea water, and the warmer water temperatures in this relatively shallow water body. He believes it to be the most feasible place in the Johns River to grow oysters (Cheney/Pooley). The North Branch is primarily used for clamming, he said, but European oysters grow well there, and he wants to learn if American oysters will thrive there, as well (Cheney, testimony). The fact that much of the surrounding land is protected from development means that the water is likely to remain free of the pollution created by sewage systems, which threatens aquaculture and shellfish harvesting in so many places along the Maine coast. The oysters, as filter-feeding bivalves, will themselves improve the quality of the water (Cheney, testimony).

3. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. §6072-A. This statute provides that a lease may be granted by the Commissioner of DMR if s/he determines that the project will not unreasonably interfere with the ingress and egress of riparian owners; with navigation; with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in an area; with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; or with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site.

A. Riparian Access

Much of the shoreline of the North Branch is undeveloped, and several riparian parcels are subject to conservation easements, so the potential for development in the future is limited. As noted in the site report, a single large dock and float are located 1,185 feet to the north of the site; they extend from the western shore across the mudflats to the edge of the channel. Two moorings lie north of the site, one 660 feet away, and the other 212 feet; this latter mooring was described by its owner as being solely to hold lobster crates and not for a boat, and the owner supports the proposed project (Kayman/testimony).

One riparian owner, Robert McLaughlin, expressed concern both through his questions to Mr. Lewis at the hearing and by letter dated Sept. 20, 2007, that Mr. Cheney's dive harvesting operation in the channel might be hazardous to Mr. Cheney himself and also to vessels attempting to avoid him, but Mr. McLaughlin did not write or testify that he believed his own access as a riparian owner to be unreasonably impaired by the project. Mr. Cheney testified that he would not be diving on the site from June to September, when most lobstering occurs in the North Branch (Cheney/Robinson), and as this is also the time of peak recreational boating activity, he

would be unlikely to interfere with the ingress and egress of any riparians or other boaters using the channel.

The project involves no gear other than marking buoys, so the lease site will not impede boats traveling in or out of the North Branch. When Mr. Cheney is seeding or harvesting, his 15-ft. work boat will be deployed on the site; at the channel's narrowest width of 100 ft. this should not create a significant obstruction. Mr. Cheney testified that he would spend limited time working on the site: possibly 5 hours per month planting oysters by broadcasting them from his boat and, eventually, harvesting for about 3 weeks in spring and fall for a maximum of 3-4 hours a day for 5 days a week. When Mr. Cheney is diving, his dive tender will be alert for approaching vessels. There is clearly the potential for occasional obstruction of a portion of the channel by the diving activities, but these activities will be limited both in occurrence and duration. They do not appear to be significantly different from the lobstering and other fishing activities that occur in the North Branch.

This is an experimental lease, and part of the experiment will be to determine whether and to what extent the site is feasible for aquaculture, given the other activities that occur in the area. The evidence presented suggests that the level of activity on the site will be quite limited and will occur mainly in the spring and fall, outside of the main recreational boating and fishing season. At most, riparian access is not likely to be impaired more than occasionally and briefly, if at all, and any such impairment would not be significant.

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.

B. Navigation

According to the site report, "Regular vessel traffic...consists primarily of limited riparian access; commercial lobster fishing; clam harvesters accessing the northerly mud flats, and recreational fishing for striped bass." Kayaking and canoeing occur in the North Branch, as well, but as the channel is relatively narrow and the water shallow, "little motorized vessel traffic is expected at lower tidal stages; it is likely limited to individuals with local knowledge of the area and the channel" (Exhibit 3, p. 8). The South Bristol Harbormaster indicated on the questionnaire he completed for DMR that the proposed lease would not interfere with navigation, storm anchorages, or riparian owner access (Exhibit 1).

No gear will be moored on the site, and only the DMR-required marking buoys will delineate the lease boundaries. Diving activities will be from Mr. Cheney's 15-ft. skiff, monitored by a tender in the boat. With regard to a possible restriction of diving activities to mid-level or higher tide, Mr. Cheney said he would prefer not to be so restricted; lower tides are easier for diving. He will not be diving on the site from June to September, he said, and there is plenty of room in the channel and little traffic at the times he will be diving. His tender will monitor his position and alert approaching boats to the presence of a diver below the surface

(Cheney/Robinson). Mr. Lewis testified that the presence of a tender would alleviate his concerns about diving at lower tidal levels and noted that large vessels would not likely navigate in the North Branch at lower tides.

As is the case with all aquaculture leases, Mr. Cheney will be required to apply to the U.S. Coast Guard Private Aids to Navigation (PATON) program to determine if navigational markings will be required.

Although the proposed lease will extend across much of the North Branch channel, given the lack of gear, the presence of a tender during dive activities, the scheduling of diving at times of less vessel traffic, and the relatively limited nature of boating activities in the area in general, the activities on this lease site will not interfere significantly with navigation in the vicinity.

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with navigation.

C. Fishing & Other Uses

Fishing in the North Branch consists of lobstering, fishing for striped bass, and clamming on the flats to the north and west of the lease site (Exhibit 3, p. 5). The site report notes that drag harvesting is unlikely to occur, as there are no populations of species that are harvested by dragging (other than oysters) (Exhibit 3, p. 5). Mr. Cheney testified that his uncle used to seine herring and pogies there (Cheney/Robinson). The Site report notes that “Infrequent and temporary interruptions of fishing and vessel movement may occur during dive harvest activities” (Exhibit 3, p. 5).

Mr. Lewis testified that the oysters are unlikely to interfere with the clams in the vicinity, as they settle on different substrates, clams in soft mud and oysters on harder surfaces (Lewis, testimony).

Mr. Cheney noted that he can do everything he proposes in the North Branch without a lease, in any case; the lease simply protects the oysters from other harvesters. He stated that if he does not obtain a lease in this location, someone else is sure to apply for one.

Asked whether he needed exclusive rights to the lease area, Mr. Cheney said he did not; lobster traps may be set inside the lease boundaries. Seiners and gill netters using the area might move his buoys accidentally, he said, but the oysters will not interfere with their activities (Cheney/Robinson).

The nearest aquaculture lease is Mr. Cheney’s Limited-Purpose Aquaculture license (LPA) for up to 400 square feet of floating gear, located off Sproul Point in Poorhouse Cove; this serves as a nursery site for oysters. There are no other aquaculture leases or license in the Johns River estuary (Exhibit 3, p. 7).

Given that this is a bottom lease with no gear and that no exclusivity is requested, the only effect of this lease on fishing and other uses will be the extent to which the diving activities

may occasionally hamper fishing and boat movement. Such interference will be infrequent and temporary. A number of activities occur on the waters of the North Branch, and any one at any time may impair the others to some degree; this is in the nature of multiple uses of small bodies of water and does not constitute unreasonable interference.

Although dragging in the North Branch appears to be unlikely at present, should it occur, it could jeopardize the aquaculture project. In accordance with the requirement of 12 MRSA §6072-A (15) (see footnote 4, below) that conditions placed on the lease “preserve the exclusive right of the lessee to the extent necessary to carry out the lease purpose”, dragging will be prohibited on the lease site.

The lease must be marked in accordance with DMR Rule 2.80.²

Therefore, considering the number and density of aquaculture leases in the area, I find that the aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area.

D. Flora & Fauna

The site report lists the various species, marine and upland, observed during the site visit and dive. These species include lobsters, hard clams, mussels, crabs, snails, algae, fish, and wild (cultched) American oysters and naturalized European oysters, among others. Birds noted include ospreys, a bald eagle, gulls, and a kingfisher. No eelgrass was observed. The site report also notes that the fact that Mr. Cheney will not harvest oysters by dragging means that there will be “minimal disturbance of the sediments or benthic community”. The report states that “the potential to negatively impact the adjacent nest or shorebirds will be no greater than the current uses of the river and surrounding shore – clam digging, fishing and recreation.” Regarding Mr. Cheney’s proposal to spread shell hash on the bottom to create more substrate for oysters, the report states that this is not necessary, as the current bottom is firm enough and adding more

² **2.80 Marking Procedures for Aquaculture Leases**

1. When required by the Commissioner in the lease, aquaculture leases shall be marked with a floating device, such as a buoy, which displays the lease identifier assigned by the Department and the words SEA FARM in letters of at least 2 inches in height in colors contrasting to the background color of the device. The marked floating device shall be readily distinguishable from interior buoys and aquaculture gear.
2. The marked floating devices shall be displayed at each corner of the lease area that is occupied or at the outermost corners. In cases where the boundary line exceeds 100 yards, additional devices shall be displayed so as to clearly show the boundary line of the lease. In situations where the topography or distance of the lease boundary interrupts the line of sight from one marker to the next, additional marked floating devices shall be displayed so as to maintain a continuous line of sight.
3. When such marking requirements are unnecessary or impractical in certain lease locations, such as upwellers located within marina slips, the Commissioner may set forth alternative marking requirements in an individual lease.
4. Lease sites must be marked in accordance with the United State’s Coast Guard’s Aids to Private Navigation standards and requirements.

shellhash “would likely alter the benthic ecology of the area” (Exhibit 3, p. 5). Mr. Cheney testified that he would abandon his plan to spread shellhash, since Mr. Lewis advised against it (Cheney/Robinson).

Mr. Lewis testified that the site constitutes “excellent oyster bottom” (Lewis, testimony) and noted that on some other aquaculture leases, culturing oysters has improved the species diversity on the site, as well as the quality of the water. Dive harvesting, he said, is the most environmentally benign method of harvest, but also the most difficult for the harvester to undertake.

Keel Kemper, a Regional Wildlife Biologist with the Maine Department of Inland Fisheries and Wildlife (MDIF&W), testified that the North Branch is designated by MDIF&W as “Significant Wildlife Habitat”. This means that it is protected under Maine law, but human activities may still occur there. Mr. Kemper’s task is to determine whether an activity will have a deleterious effect on wildlife resources, especially tidal waterfowl. In doing this, he considers whether the activity will prevent access by waterfowl to their habitat or change the nature of the habitat. Mr. Cheney’s project, he said, “will have minimal impact on waterfowl and wading birds” (Kemper, testimony). He testified that there is no Essential Habitat (nesting areas for endangered species) in the vicinity.

Mr. Pooley, testifying on behalf of the Damariscotta River Association (DRA), read a prepared statement objecting to the project because of its negative impact on wildlife. Upon being asked, however, he could not specify which wildlife species the DRA was concerned about, nor what the alleged impact would be (Pooley/Robinson). He requested that the record be kept open after the hearing to allow the DRA to supplement their testimony with more specific information, but the hearings examiner denied this request on the grounds that the Association had had ample notice of the hearing and adequate time to prepare testimony.

Mr. Cheney’s aquaculture project, which he could legally undertake without a lease, does not involve activities that are significantly different from anything that already occurs in the waters of the North Branch. The lack of gear, the use of a small boat, and harvesting by diving instead of dragging create a project with minimal impact on the natural environment. Expert testimony by both Mr. Lewis and Mr. Kemper corroborate this conclusion. Moreover, Mr. Cheney, in both his application and his testimony, evinced a commitment to the welfare of the North Branch that suggests that he will be a good steward of its natural resources.

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

E. Public Use & Enjoyment

According to the report of the South Bristol Harbormaster, there are no government-owned beaches, parks, or docking facilities located within 1,000 ft. of the proposed lease site (Exhibit 1).

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.

F. Source of Organisms

According to the application and Mr. Cheney's testimony, he has already seeded the site with wild American oysters gathered from the Damariscotta River. European oysters exist on the site, probably from a previous aquaculture project by Dean and Eleanor Adams in the 1980s (Cheney, testimony). Mr. Cheney testified that he is raising American oysters from Sandy Cove Hatchery on his LPA site in Poorhouse Cove; he will plant them on the lease site in the summer of 2008. He is seeking a hatchery source of European oysters, possibly from Muscongus Bay Aquaculture or from a project he is working on with the Darling Center of the University of Maine.

Therefore, I find that the applicant has demonstrated that there is an available source of American oysters (*Crassostrea virginica*) and European oysters (*Ostrea edulis*) to be cultured for the lease site.

4. CONCLUSIONS OF LAW

Based on the above findings, I conclude that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.
2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation. The lease site shall be marked in accordance with U.S. Coast Guard requirements.
3. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area. Fishing, including lobstering, will be allowed on the lease site, but dragging will be prohibited. The lease boundaries must be marked in accordance with the requirements of DMR Rule 2.80.
4. The aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.
5. The aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.

6. The applicant has demonstrated that there is an available source of American oysters (*Crassostrea virginica*) and European oysters (*Ostrea edulis*) to be cultured for the lease site.

Accordingly, the evidence in the record supports the conclusion that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072-A.

5. DECISION

Based on the foregoing, the Commissioner grants the requested lease of 1.85 acres to David P. Cheney, Inc., for 3 years, the term of the lease to begin within twelve months of the date of this decision, on a date chosen by the applicant³; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed. This limited-purpose (experimental) lease is granted to the applicant for the purpose of cultivating American oysters (*Crassostrea virginica*) and European oysters (*Ostrea edulis*) using bottom culture techniques. The applicant shall pay the State of Maine rent in the amount of \$100.00 per acre per year. As this is an experimental lease with no structures and no discharge, no bond or escrow account is required.

6. CONDITIONS TO BE IMPOSED ON LEASE

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 MRSA §6072-A (15)⁴. Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the lease. The following conditions shall be incorporated into the lease:

1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.
2. Fishing, including lobstering, is allowed on the lease site, but dragging is prohibited.

³ DMR Rule 2.64 (14) provides:

“The term of the lease shall begin within 12 months of the Commissioner’s decision, on a date chosen by the applicant. No aquaculture rights shall accrue in the lease area until the lease term begins and the lease is signed.”

⁴ 12 MRSA §6072-A (15) provides:

“The commissioner may establish conditions that govern the use of the leased area and limitations on the aquaculture activities. These conditions must encourage the greatest multiple, compatible uses of the leased area, but must also address the ability of the lease site and surrounding area to support ecologically significant flora and fauna and preserve the exclusive rights of the lessee to the extent necessary to carry out the lease purpose. The commissioner may grant the lease on a conditional basis until the lessee has acquired all the necessary federal, state and local permits.”

7. REVOCATION OF LEASE

The Commissioner may commence revocation procedures if s/he determines that substantial aquaculture has not been conducted within the preceding year or that the lease activities are substantially injurious to marine organisms. If any of the conditions or requirements imposed in this decision, in the lease, or in the law is not being observed, the Commissioner may revoke the aquaculture lease.

Dated: _____

George D. Lapointe (Commissioner)
Department of Marine Resources